



SOLVENT CONTAMINATED TOWELS OR RAGS

Technical Guidance Document HW 95-02

The following guidance is provided for the management of solvent contaminated towels or rags (sometimes referred to as "wipers"). Towels or rags, both cloth and paper, are used throughout various industries to clean parts and machinery. Towels or rags may be classified as reusable or disposable. These towels or rags may be used in conjunction with solvent in the cleaning process and, at the time of disposal, the towels or rags may be considered a characteristic or listed hazardous waste. When mismanaged, these used towels or rags may present a danger to public health and the environment.

The **reusable towels or rags**, that may be contaminated with characteristic or listed solvent(s), that are laundered by a commercial laundry or laundered on-site are exempt from state and federal hazardous waste regulations if the wastewater is discharged to a sanitary sewer. If a facility decides to launder their own towels or rags on-site, the owner/operator needs to get prior approval from the city to discharge the wastewater into the sanitary sewer.

The towels or rags, that are laundered, must not contain any free liquid. Towels or rags that contain a free liquid phase (as defined by the paint filter test Method 9095, SW-846) and fails ignitability testing (as defined by test method 1010, SW-846) are classified as ignitable under the Resource Conservation and Recovery Act (RCRA). A wringer or centrifuge works well to remove the excess solvent which should be managed appropriately. The laundry should be notified that it is receiving solvent contaminated towels or rags.

What if a facility decides to launder the rags and then dispose of them instead of recycling them? This laundering could be considered treatment of hazardous waste because the intent is not to recycle the rags but to render them non-hazardous. In this case the unlaundered rags would have to be tested using the Toxicity Characteristics Leaching Procedure (TCLP) to determine if they are hazardous waste and meet the land disposal restrictions (LDRs). If the rags are found to be hazardous, or if the concentration of the hazardous constituent is higher than the LDR number for that hazardous constituent, the rags would have to be disposed as hazardous waste. If the rags are determined to be non-hazardous, they may be disposed as solid waste.

The management of **disposable towels or rags** is more complex and depends on the type of solvent used. Those disposable towels or rags that are contaminated with a **characteristic** solvent may be hazardous if the rags are still ignitable or contain other contaminants such as heavy metals. If the rags pass the paint filter test as outlined in SW-846 (i.e. they do not contain any free liquids) they are not ignitable. However, they may still be hazardous for other contaminants. These rags need to be tested using the TCLP in order to make this determination. Although, the hazardous waste regulations do not prohibit the disposal of towels or rags that are not ignitable and do not contain other contaminants in the trash, other requirements may exist that would prohibit this disposal method such as safety factors, insurance requirements, local fire department regulations, landfill requirements, or local ordinances.

Disposable towels or rags that are contaminated with **listed** solvents (waste codes F001, F002, F004, and F005) are listed due to toxicity. Disposable towels and rags contaminated with these solvents are a hazardous waste. These towels and rags must be managed as a hazardous waste as outlined in K.A.R. 28-31-4.

Disposable towels or rags that are contaminated with listed solvent(s) with the waste code F003, may or may not be a hazardous waste. Spent solvents under the waste code F003 are listed solely for the characteristic of ignitability. If disposable towels or rags contaminated with the F003 spent solvent are ignitable, they are a hazardous waste. If these towels or rags pass the paint filter test (i.e. they do not contain any free liquids and are therefore not ignitable), do not contain other contaminants, and meet the Land Disposal Restrictions outlined in 40 CFR, Part 268, they are not considered a hazardous waste

For additional information regarding proper management of solid waste, you may contact the Bureau of Waste Management at (785)296-1600 or the address at the top of this document.